UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,544	03/29/2004	Thomas E. Stirling	2925.WHLPT	2246

26986 7590 09/25/2008

MORRISS OBRYANT COMPAGNI, P.C.
734 EAST 200 SOUTH
SALT LAKE CITY, UT 84102

EXAMINER	
BERTHEAUD, PETER JOHN	

ART UNIT	PAPER NUMBER
3746	

MAIL DATE	DELIVERY MODE
09/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/811,544	STIRLING ET AL.	
	Examiner	Art Unit	
	PETER J. BERTHEAUD	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 May 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-12* is/are allowed.

6)☒ Claim(s) *13-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 June 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office action is in response to amendments filed 5/27/2008. It should be noted that claim 1 has been amended.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hawes 5,529,462 in view of Hofstad 4,902,204, and in further view of McEwen 5,030,346.

Hawes (Fig. 4) discloses a submersible pump having an pump inlet 36 and a pump discharge outlet 20; a pump distribution plate 26 for positioning near the floor of a sump pit or tank, said pump distribution plate 26 formed of a substantially linear plate portion of material having a top surface and a bottom surface; at least one opening 34 through said linear plate portion sized to receive the inlet 36 of a pump for receiving said pump inlet and having a bottom surface for orientation toward the floor of a sump pit or tank, and having leg members 38 extending from said bottom surface sized to position said pump inlet away from the floor of a sump pit or tank. Hawes further discloses that the pump inlet is sized for receipt in said at least one opening. Hawes fails to disclose the following claimed limitations taught by Hofstad and McEwen.

Hofstad teaches a vertical submersible pump assembly comprising a pump inlet (see col. 1, lines 67-68), and a base housing 8 with a plurality of guide members extending therefrom on which the pump is mounted on. Hofstad further teaches that the guide members are arranged in relation to the pump inlet in such a way that they are positioning the pump inlet away form the floor of a sump pit or tank, and furthermore are capable of facilitating solids entrainment by the submersible pump (see fins on bottom of pump in Fig. 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the pump assembly of Hawes, by implementing guide members on the bottom surface of the distribution plate so as to facilitate solids entrainment by the submersible pump (Hofstad, Fig. 1 and col. 1, lines 63-68).

McEwen teaches a pump apparatus comprising a pump P, a discharge housing 42, and an inlet opening 68. McEwen further teaches a distribution plate 30 having at least one opening therethrough for receiving said pump inlet upon lowering of said submersible pump into a sump pit or tank in which said pump distribution plate is positioned; and a centering member 44 surrounding each said at least one opening in said pump distribution plate 30 for receiving said pump inlet of said submersible pump in centered registration therewith. Although it is not specifically disclosed in McEwen, it would have been obvious to provide said pump inlet with a sealing ring to create a sealing engagement of said pump inlet with said centering member 44 because in Figure 4 of McEwen there is a sealing ring 84 disposed between the pump and the

outlet piping in order to prevent the working fluid from escaping. Therefore, it would have been obvious to place an additional seal between the pump inlet and the centering member for the same purpose. Furthermore, it is well known in the art to provide sealing rings between elements that are involved with fluid transfer.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the pump assembly of Hawes i.v., Hofstad, by implementing a centering member in order to receive and mount the inlet of the pump in slip-fit relation (McEwen, col. 10, lines 25-29).

4. Claims 14, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawes 5,529,462 in view of Hofstad 4,902,204, in view of McEwen 5,030,346, and in further view of Back 3,771,915.

Hawes in view of Hofstad and McEwen discloses the invention as discussed above. However, Hawes in view of Hofstad and McEwen fails to disclose the following claimed limitations taught by Back.

Back teaches a submersible pump comprising a pump P, a discharge outlet 14 and discharge piping 10, 12. Back further teaches that the discharge piping has an angled opening (see configuration in Fig. 7) and a disconnect system comprising an angled face 69 surrounding said pump discharge outlet for assuring mating and sealing of said pump discharge outlet to said angled opening of said discharge piping. Back also teaches a discharge elbow stand 44, 18 configured with said angled opening, and secured to the base plate 20 and said discharge piping 10,12.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the pump assembly of Hawes in view of Hofstad in view of McEwen, by angling the discharge outlet and piping in order to guide the discharge outlet to sealingly engage the discharge piping (Back, col. 4, lines 47-50).

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Englesson 3,018,925 in view of McEwen 5,030,346.

Englesson discloses a submersible pump having a vertical disconnection system for drop in and lift out of the pump from a sump pit, well or tank, comprising; a submersible pump 10 having a central axis, a pump inlet 13 and a pump discharge outlet (see 15), and having a guide rail bracket 6, 33 for sliding engagement with a guide rail system 5, 29, said pump discharge outlet having an angled face (see 15 in Figs. 1, 2, 4, and 5) surrounding a discharge opening, the slope of said angled face being directed inwardly toward said central axis in the direction of said pump inlet (see Figs. 1, 2, 4, and 5) at the point of said angled face which is in closest proximity to said pump outlet, said angled face being distance from and unsupported by said guide rail bracket. However, Englesson does not teach the following claimed limitations taught by McEwen.

McEwen teaches a pump apparatus comprising a pump P, a discharge housing 42, and an inlet opening 68. McEwen further teaches a distribution plate 30 having at least one opening therethrough for receiving said pump inlet upon lowering of said submersible pump into a sump pit or tank in which said pump distribution plate is positioned; and a centering member 44 surrounding each said at least one opening in

said pump distribution plate 30 for receiving said pump inlet of said submersible pump in centered registration therewith. Although it is not specifically disclosed in McEwen, it would have been obvious to provide said pump inlet with a sealing ring to create a sealing engagement of said pump inlet with said centering member 44 because in Figure 4 of McEwen there is a sealing ring 84 disposed between the pump and the outlet piping in order to prevent the working fluid from escaping. Therefore, it would have been obvious to place an additional seal between the pump inlet and the centering member for the same purpose. Furthermore, it is well known in the art to provide sealing rings between elements that are involved with fluid transfer.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the pump assembly of Englesson, by implementing a centering member on a distribution plate in order to receive and better stabilize the pump in its mounting.

6. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Englesson 3,018,925 in view of McEwen 5,030,346.

Englesson in view of McEwen discloses the general conditions of the claimed invention except for the express disclosure that the angles face is between about five and about forty-five degrees to the central axis. It would have been obvious to one having ordinary skill in the art at the time the invention was made to angle the face of the discharge outlet between five and forty-five degrees, since the claimed values are merely an optimum or workable range. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable

ranges involves only routine skill in the art. *In re Aller,* 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) (see MPEP 2144.05 II - Optimization of Ranges).

7. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Englesson 3,018,925 in view of McEwen 5,030,346, in view of Oakes 4,308,00.

Englesson in view of McEwen discloses the invention as discussed above. However, Englesson in view of McEwen does not teach the following claimed limitations taught by Oakes

Oakes teaches a submersible pump comprising a pump 5, a guide rail assembly 13, 20, and a discharge outlet 12 connected to discharge piping 7, 8. Oakes further teaches that the face of said pump discharge outlet 12 is configured to retain a discharge seal ring 44; and wherein the face is positioned on a discharge adaptor 31 which is further configured with a contact surface for contacting said discharge outlet of said submersible pump, said discharge adaptor being distanced from and unsupported by said guide rail bracket 20.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the pump assembly of Englesson in view of McEwen by implementing a seal ring in the angled face of the discharge outlet in order to seal the gap between the outlet and the piping (Oakes, col. 6, lines 41-45) and by implementing the angled face of Englesson on a discharge adaptor 31 in order to better connect the discharge piping to the pump (Oakes, col. 5, line 55 – col. 6, line 18).

Allowable Subject Matter

8. Claims 1-12 are allowed.

Response to Arguments

9. Applicant's arguments filed 5/27/2008 have been fully considered but they are not persuasive.

10. In response to Applicant's arguments with respect to claims 13-16: Applicant argues the combination of Hawes and Hofstad stating, "nothing in Hofstad suggests moving the integrally formed fins from the pump casing to place them on a plate (of Hawes)." Examiner respectfully disagrees. First, placing guide fins on elements associated with fluid flow is a conventional and well known practice. Hofstad is merely used to show this fact, particularly that the use of guide fins adjacent to a submersible pump entrance is known in the art. Therefore, it would have been obvious to have implemented these guide members on the bottom surface of the distribution plate of Hawes so as to facilitate solids entrainment by the submersible pump.

In reference to the rejection of claims 14-16: McEwen is relied on due to its use in the rejection of claim 13. In the previous Non Final Rejection McEwen's name was left out in the statement in question due to a typographical error. However, McEwen's name and patent number were in the main rejection statement, so there should have been no confusion as to McEwen's contribution to the rejection. McEwen was used in the rejection of claim 13, and therefore needed to be used in the rejection of 14-16 as well.

11. In response to Applicant's arguments with respect to claims 17-20: Applicant argues the combination of Englesson and McEwen stating, among other things, that "McEwen does not have any recognition of the need to provide a pump that is

structured to register both the inlet and the discharge outlet of the pump with corresponding openings in a distribution plate as claimed." Examiner respectfully disagrees. Englesson teaches a pump that lowers down into a sump along a guide rail and couples a pump outlet with a discharge pipe. McEwen teaches a pump that is lowered onto a distribution plate, coupling a pump inlet to the plate and an outlet to a discharge pipe. The motivation to combine McEwen with Englesson would be to provide a more stable mount for the pump so as to limit vibrations; therefore preventing leakage in the discharge coupling. Thus, the combination reads on the claim.

In reference to claims 19 and 20: Applicant argues that Oakes teaches a vertical face on the pump discharge outlet. Oakes is simply used to show that a seal in the outlet of a pump is well known in the art. Englesson has already disclosed the angled face of the outlet. Furthermore, a seal in any coupling will only increase the leak prevention and is therefore valid to combine Oakes with Englesson.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PETER J. BERTHEAUD whose telephone number is (571)272-3476. The examiner can normally be reached on M-F 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on (571) 272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devon C Kramer/
Supervisory Patent Examiner, Art Unit 3746

PJB
/Peter J Bertheaud/
Examiner, Art Unit 3746